

REMARKS

Claims 1-20 were originally filed in the present application.

Claims 1-20 are pending in the present application.

Claims 1-20 were rejected in the February 15, 2008 Office Action.

No claims have been allowed.

Claims 1-20 remain in the present application.

Reconsideration of the claims is respectfully requested.

I. CLAIM REJECTIONS -- 35 U.S.C. §102

In Sections 5-14 of the February 15, 2008 Office Action, the Examiner rejected Claims 1-17 under 35 U.S.C. §102(e) as being anticipated by U. S. Patent No. 7,082,104 to *Wolrich, et al.* (hereinafter, simply "Wolrich1").

A prior art reference anticipates the claimed invention under 35 U.S.C. § 102 only if every element of a claimed invention is identically shown in that single reference, arranged as they are in the claims. MPEP § 2131, p. 2100-76 (8th ed., rev. 4, October 2005) (*citing In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990)). Anticipation is only shown where each and every limitation of the claimed invention is found in a single prior art reference. *Id.* (*citing Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987)).

Applicants respectfully submit that the Wolrich1 reference fails to show each and every

limitation of Claim 1. Specifically, Claim 1 recites, "N microengines capable of forwarding said data packets, each of said microengines capable of executing a plurality of threads that perform forwarding table lookup operations."

The Office Action appears to suggest that the Wolrich1 reference discloses N microengines capable of executing a plurality of threads that perform forwarding table lookup operations. However, the section of the Wolrich1 reference cited by the Office Action actually states:

Scheduling Data Transfers for Different Types of Ports

Each network processor supports output queues for all destination ports connected to the switch fabric. Transmission of data from a network processor to a destination port is accomplished under processor micro-code control using several micro-engine code threads. A code thread, designated the "poller/arbiter", determines which destination ports are "owned" by the processor. The output queues of "owned" destination ports are scanned for new packets to be sent through the switch. A software queue structure containing entries that specify an output queue to service serves as the interface between the poller/arbiter thread and a transmit/scheduler code thread (described below).

The transmit/scheduler thread sends packet data to the 16 virtual queues 34a to 34h at the input of switch 10. Two of the virtual queues in each input segment are sized at 8 M-packets in depth (512 bytes) to facilitate Gb/s rate transmits, while the remaining 14 queues are 4 M-packets in depth. The transmit/scheduler thread: (1) determines when enough input Ix bus bandwidth is available to start a new packet, (2) selects the virtual queue to be used in forwarding the packet through the switch, (3) determines the ready status of the virtual queues for in-progress transmission of packets, and (4) assigns transmit "fill" and FIFO elements which determine the order packets are to be forwarded across the Ix bus.

The transmit/scheduler thread can start a new 100 Mb/s packet whenever a virtual queue is available. For systems with both 100 Mb/s and Gb/s ports, the transmit/scheduler thread assigns the first 14 100 Mb/s packets to a 4 M-packet depth virtual queue. The 8 M-packet virtual queues are assigned to 100 Mb/s port transmits only if all 14 "shallow" queues are in use and there are no Gb/s transmits pending. (Col. 8, lines 5-40.)

Accordingly, the Wolrich1 reference simply discloses "several micro-engine code threads". The

Wolrich1 reference does not teach or suggest a plurality of threads that perform **forwarding table lookup operations** as recited in Claim 1. Accordingly, Applicants respectfully submit that Claim 1 is patentable over Wolrich1.

Independent Claim 9 recites limitations analogous to the novel limitations emphasized above in traversing the rejection of Claim 1 and, therefore, also is patentable over the Wolrich1 reference. Additionally, Claims 2-8 and 10-16 depend from Claims 1 and 9 respectively, and include all the limitations of their respective base claims. As such, Claims 2-8 and 10-16 also are patentable over the Wolrich1 reference.

Accordingly, the Applicants respectfully request the Examiner to withdraw the § 102 rejections with respect to Claims 1-16.

II. **CLAIM REJECTIONS -- 35 U.S.C. §103**

In Sections 15-8 of the February 15, 2008 Office Action, the Examiner rejected Claims 17-20 under 35 U.S.C. §103(a) as being unpatentable over the Wolrich1 reference in view of U. S. Patent No. 6,661,794 to *Wolrich, et al.* (hereinafter, simply "Wolrich2").

In *ex parte* examination of patent applications, the Patent Office bears the burden of establishing a *prima facie* case of obviousness. (*MPEP* § 2142; *In re Fritch*, 972 F.2d 1260, 1262, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992)). The initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention is always upon the Patent Office. (*MPEP* § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d

1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984)). Only when a *prima facie* case of obviousness is established does the burden shift to the Applicant to produce evidence of nonobviousness. (*MPEP* § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993)). If the Patent Office does not produce a *prima facie* case of unpatentability, then without more the Applicant is entitled to grant of a patent. (*In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Grabiak*, 769 F.2d 729, 733, 226 U.S.P.Q. 870, 873 (Fed. Cir. 1985)).

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art, and not based on the Applicant's disclosure. (*MPEP* § 2142).

Applicants respectfully submit that the cited references fail to teach or suggest all the claim limitations of Claim 17. Specifically, Claim 17 recites, "N microengines capable of forwarding the data packets, each of the microengines capable of executing a plurality of threads that perform forwarding table lookup operations."

As discussed earlier, Wolrich1 simply discloses "several micro-engine code threads". Wolrich1 does not teach or suggest a plurality of threads that perform **forwarding table lookup**

operations as recited in Claim 17.

Therefore, Claim 17 is patentable over Wolrich1, either alone or in combination with Wolrich2. Additionally, Claims 18-20 depend from Claim 17 and include all the limitations of Claim 17. As such, Claims 18-20 also are patentable over Wolrich1.

Accordingly, the Applicants respectfully request the Examiner to withdraw the § 103 rejections with respect to Claims 17-20.

The Applicants also disagree with the Examiner's rejections of Claims 1-20 based on additional misdescriptions and/or misapplications of the Wolrich1 and Wolrich 2 references to at least some of Claims 1-20. However, the Applicants' arguments regarding those other shortcomings of the Wolrich1 and Wolrich 2 references are moot in view of the Claim 1 arguments above. However, the Applicants reserve the right to dispute in future Office Action responses the appropriateness and the applications of the Wolrich1 and Wolrich 2 references to the claims of the present application, including the right to dispute assertions made by the Examiner in the February 15, 2008 Office Action.

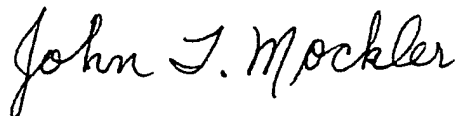
SUMMARY

For the reasons given above, the Applicants respectfully request reconsideration and allowance of the pending claims and that this application be passed to issue. If any outstanding issues remain, or if the Examiner has any further suggestions for expediting allowance of this application, the Applicants respectfully invite the Examiner to contact the undersigned at the telephone number indicated below or at *jmockler@munckcarter.com*.

The Commissioner is hereby authorized to charge any additional fees connected with this communication or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

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